

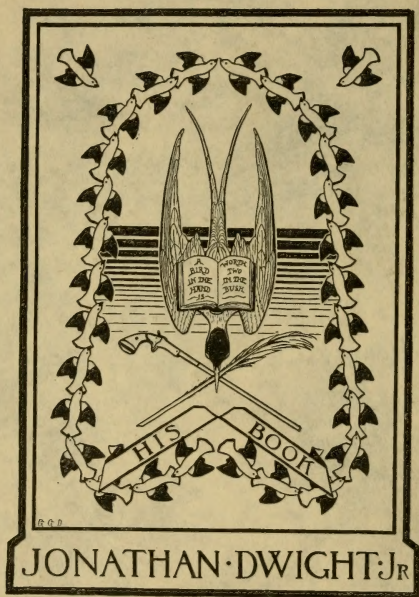
FOREST BIRDS

THEIR
HAUNTS
AND
HABITS



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FOREST BIRDS.

“ The living inhabitation of the world—the grazing and nesting in it,—the spiritual power of the air, the rocks, the waters,—to be in the midst of it, and rejoice and wonder at it . . . this was the essential love of nature in me . . . and the light of all that I have rightly learned.”

JOHN RUSKIN.

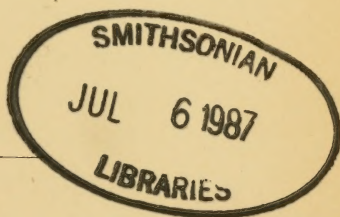
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Birds

FOREST BIRDS

THEIR HAUNTS AND HABITS/

SHORT STUDIES FROM NATURE

BY HARRY F. ^{Forbes} WITHERBY



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PREFACE.

THE chief aim of the writer of this little volume has been to accurately record his own experience and observations in the life history of the eight species of birds described in its pages.

The information presented to the reader has been with few exceptions the result of many hours of patient watching and waiting on the part of the writer. The scenes of his observations have been found in that bird-lover's paradise—the New Forest, and also in various parts of the British Isles.

As regards the illustrations, the eight full-page plates have been reproduced from photographs of his cases; while the smaller illustrations in the text have been specially drawn from his specimens. Some of the papers have appeared from time to time in *Knowledge*, but they have since been re-written; while two have appeared in *Science Gossip*.

Preface.

If the perusal of the following pages should awaken in the reader an interest in the haunts and habits of forest birds, the writer's object will have been achieved.

BLACKHEATH,

October, 1894.

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GREEN WOODPECKERS: MALE BIRD ENTERING HOLE IN DECAYING BEECH TREE
CONTAINING EGGS.

From nature. About one-fourth natural size.

CHAPTER I.

THE GREEN WOODPECKER.

(*Picus viridis.*)

AT all times of the year a forest has charms for the naturalist, but it is in the spring, when Nature is awakening from her long winter sleep, that it affords him the greatest pleasure.

We were strolling one lovely May day along a grassy glade in the most beautiful forest in England, with the beech trees above us swathed in a delicate green, the oaks still bearing the russet tint of early spring, and here and there a wavy birch or dark-green holly shadowing forth. The gorse was budding, and the green shoots of the bracken were everywhere peeping through the mossy floor, while all around us the tits and finches were softly twittering, when suddenly, just above our head, a loud uncanny

cry, like a madman's laugh, sounded forth, echoing harshly through the trees. It was so loud and unexpected that, often as we had heard it before, we were startled. Looking up into the tree whence the sound proceeded we saw a Green Woodpecker, whose dark-green form was scarcely distinguishable from the mossy trunk to which it clung.

Standing motionless, we watched every movement of the bird as it climbed up the tree. Grasping the bark firmly with its strong curved claws, and keeping its tail pressed down upon the trunk, the Woodpecker mounted by a series of short jerks or jumps, and, as it went, every now and then it gave the tree a loud tap with its powerful beak, instinctively knowing by the sound given out whether or not there was a decaying part. Presently such a spot was detected, and the Woodpecker's head began to move backwards and forwards so fast that we could scarcely follow its movements, and a sound like that of a miniature steam hammer was made by its vigorous pecking! This noise soon disturbed the insect inhabitants of the decaying wood, and as they ran out, the bird stopped its rapid blows, and shooting out a long tongue, like a glistening ribbon, from its mouth, soon captured every insect visible. Then up the bird went again, and soon reached the top of the tree, where it clung for a moment, as if

uncertain what to do. At last, away it went, with a heavy, undulating flight, and we caught sight of it through the leaves alighting at the base of an old beech tree.

The Green Woodpecker lives for the most part on the various insects and larvæ captured on and under the bark of trees. At the same time it feeds more often on the ground than the Spotted and Lesser Spotted Woodpecker (*Picus major* and *minor*), the only other representatives of the genus found in Great Britain, for we have repeatedly disturbed it on the grass, or in the act of scraping at an ant's nest with its claws in search of eggs and grubs, which it eagerly licks up with its tongue.

This long tongue is well worthy of our attention. It tapers to a hard, sharp point like that of a needle, while the tip is furnished with several minute, hair-like barbs set backwards like the point of a fish-hook. To the base of the tongue are joined two extremely elastic bones (*hyoid cornua*), each of which is enclosed in a delicate sheath. These sheaths passing through the lower mandible divide and hang down in the form of a loop, one on each side of the neck, then they curl round and upwards, and passing over the top of the head are again united, and joined to the skull in the right nostril (Fig. 1). Besides the bones there is a muscle enclosed in each sheath,

running along the concavity of the bone, and as this muscle contracts, it straightens the sheath and

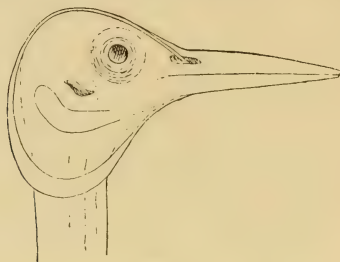


FIG. 1.

Head of Green Woodpecker, showing sheath passing round head, and joined to skull in nostril.

From nature. One-half natural size.

so forces out the tongue to a considerable distance beyond the point of the bill (Fig. 2). Thus when the bird sees an insect in a hole or under the bark, it



FIG. 2.

Head of Woodpecker, showing tongue extended and (G) gland.

From nature. One-half natural size.

shoots out its wormlike tongue and transfixes the insect, the barbs preventing its prey from slipping

off or escaping, and when this method is inconvenient it will drag out the insect, using the barbs as a sort of rake. But there is yet another provision vouchsafed by the wonderful economy of Nature. On each side of the head there is a gland (Fig. 2), which secretes a strong mucilage, and these glands are so connected with the tongue that it becomes sticky at the moment in which it is thrust out to capture an insect.

The Woodpecker's tail is as interesting to examine as the tongue, being strangely modified to suit its requirements. We have said that the tail is kept pressed down upon the tree when the bird is climbing, and for a very good reason, as the tail thus affords a large amount of support. It is composed of wiry elastic feathers, each of which is wedge-shaped at the end, and beyond this it is curious to note that not only is each feather so shaped, but the whole tail is in the form of a wedge, the middle feather being the longest, and the rest tapering away on each side (Fig. 5, p. 26). It is when the bird is pecking at a tree that the utility of the tail is shown to the best advantage, for it then serves, one might almost say, as a third leg. As the bird clings to the bark with its feet, it throws its head right back to strike a blow, and the tail then acts as a support behind, and prevents it from falling backwards.

There is still another peculiarity in the anatomy of the Woodpecker. When climbing a tree it must necessarily keep its body very close to the trunk, or the strain on the legs would be too great, and to enable the bird to accomplish this, a specially-formed breast-bone has been provided.

On comparing the breast-bone of the Green Woodpecker with that of another bird of about the same size, viz., the stock dove (*Columba ænas*), we

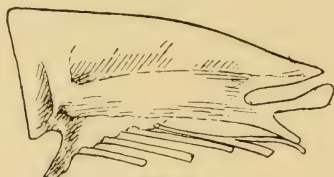


FIG. 3.

Breast-bone of Green Woodpecker.

From nature. Natural size.

notice at once a difference in the size and shape, which is truly wonderful. The breast-bone of the Green Woodpecker has a very low keel (Fig. 3), and this dwarfing of the keel enables the bird to cling closely to the tree. The stock dove on the contrary has a correspondingly high keel to the breast-bone (Fig. 4), and the reason for this is soon found, for the stock dove is indued with great powers of flight, and since the pectoral muscles, which move the wings, are

placed on each side of the keel, it must necessarily be high to protect the larger muscles of the stock dove. The Woodpecker has of course much smaller pectoral muscles, and consequently less power of flight, but since climbing is much more essential to this bird than long flights, the low keel is of immense advantage to it.



FIG. 4.
Breast-bone of Stock Dove.
From nature. Natural size.

Having thus briefly examined the anatomy of the Woodpecker, let us now pass on to its habits. Although so lovely, and therefore the more likely to be destroyed by man, we are glad to say that it is still fairly common in the wooded districts of England. It is to be found as far north as Yorkshire, beyond which it becomes rare, while in Ireland it is only an

occasional visitor. Naturally a shy and wary bird it is not often seen, but its resonant laughing note may always be heard in the wood it frequents. This is its only note, and as there is no other British bird that makes a sound anything like the Yaffler, as it is sometimes called on account of its note, it can scarcely be mistaken.

When walking through a wood one often sees a round hole, some two inches in diameter, in a tree trunk. Perhaps the tree is a beech or an oak, but at all events one may be pretty sure that it is in decay, for the Woodpecker has made the hole, and it seldom attacks a perfectly sound tree. Its object in making these holes is to provide a nesting place. In April this bird bores small holes in a number of trees until a suitable one is found, when it sets to work in earnest, and a cavity is cut, chip by chip, with its massive bill, some three or four inches horizontally into the trunk, and continuing downwards about eighteen inches, then gradually widening, until at the bottom it forms a round platform large enough for the bird to sit on. So hard are its blows, that the bird often chips off a piece of wood several inches in length. Moreover, the Green Woodpecker is a careful worker; and the chips are not left, as they are by other Woodpeckers, in a white staring heap at the bottom of the tree, to mark the position of

the hole above, but each chip is carried to some distance by the industrious bird. Thus is the nesting place finished, and upon the wood-dust left at the bottom of the hole by these winged carpenters, the female lays her eggs. They are glistening white, and from five to eight in number, and both birds take their turn in sitting on them.

The entrance to the nest is usually made at from twenty to thirty feet from the ground, but we have seen one scarcely four feet up, in which a Green Woodpecker was sitting. Although this bird generally cuts out a hole for itself, it will occasionally take possession of a naturally formed one, provided it be dry, and of a suitable size.

The plumage of this, our largest and commonest Woodpecker, possesses a beautiful blending of colours. The back is shiny olive green, shading off to a bright yellow on the tail coverts; the top of the head is of a rich crimson, contrasting perfectly with the green of the back, whilst the throat and breast are of a light straw colour, which is sometimes stained to a dark brown by the bird's contact with the trunks of trees.

The male differs from the female in the "moustache"; they both possess one, but while his is red, hers is black! The peculiarity which has earned for itself the name "moustache," is a narrow line of

feathers running under the eye from the base of the lower mandible to the end of the skull.

The young of the Green Woodpecker, during the first year, may be distinguished from the adult birds by the speckled plumage on the back, and the general dulness of their colouration, when compared with the mature birds.



TREE CREEPERS ON AN OLD OAK CONTAINING NEST.

From nature. About one-half natural size.

CHAPTER II.

THE TREE CREEPER.

(*Certhia familiaris.*)

TAKING our stand one bright spring morning at the end of an avenue of oaks, we noticed a little brown bird creeping up the trunk of one of the trees. Remaining perfectly still, we watched its movements through a field-glass. The little bird had just alighted at the base of a fine old oak, and immediately commenced to climb upwards in a spiral direction, winding its way methodically round and round the stem of the tree. As it climbed it peered into every crevice and cranny of the bark, patiently searching for the insects which form its food. At length, after a toilsome journey, it arrived at the end of one of the larger branches; and then, instead of going to another branch, as we should have

expected, it left the tree altogether, and darted off with a dipping flight to the trunk of a neighbouring oak, up which it climbed in the selfsame way, thus continuing its work from dawn to sundown. This industrious bird doubtless covers each day some miles in its journeys up the trees, for seldom is it at rest, save at night and in nesting time.

We have watched this little bird many hours, and have not often known it to vary its orderly way of climbing. We can only suggest that the reason for this must be sought in the methodical nature of the bird.

It never descends a tree head foremost, but we have seen one take several steps backwards down an old oak, from out of which it was pulling a piece of touchwood.

The favourite resorts of the Creeper are wooded districts, and spots where there are many of the larger kinds of trees. It especially delights in localities where a number of trees are grouped together, such as an avenue or a plantation.

This species is sometimes called the Tree Climber, and more correctly so, for the name Creeper implies that it creeps up the tree, putting one leg before the other, as does the nuthatch. This, however, is not the case, for the Creeper climbs by making a number

of quick jumps, but so rapid are these movements that, if the bird be not closely watched, it seems to be creeping evenly up the trunk, and hence, no doubt, its name of Tree Creeper.

It climbs in its elegant way by means of the claws and tail. The claws are long and curved, and number four on each foot, three pointing forward, and one backward, the latter being twice as long, and much stouter than the others. (Fig. 10, p. 37.) With these it grasps the bark securely, and with the help of its tail, which is always kept curved down upon the bark, the bird easily supports its light weight as it moves up the trunk.

The feathers of the tail, which are twelve in number, are stiff and pointed, and resemble those of the woodpecker in shape and texture. (Fig. 6.)

Though the Creeper appears to be very sombre in colour when viewed from a distance, on closer inspection it is seen to be very prettily marked and pencilled. Its general colouring is very protective, being similar to that of the bark of the trees up which it climbs. If suddenly disturbed, it will quickly place itself on the side of the tree farthest from the intruder, and thus it is often passed by unseen. Its shy and unpretending character, and its protective colouring, account for the Tree Creeper being considered more rare than is really the case.



FIG. 5.

Tail of Green Woodpecker.

From nature. Natural size.

The Creeper is solitary in its habits. During summer it spends its day either alone or with a mate, but never in large numbers. In winter, however, it often associates with little companies of titmice of various kinds. It is curious that birds of such different dispositions should congregate together—



FIG. 6.

Tail of Creeper.

From nature. Natural size.

the titmouse, with its life and sprightliness, is always happy, and, one might say, playful, while the Creeper is ever hard at work, silently plodding up the trees in search of its daily food.

The food of the Creeper, as may be supposed, consists of small beetles, larvæ, spiders, and other insects which infest the bark of trees. The bird

captures these insects with its beak. It has no barbed tongue like the woodpecker, but the long, curved beak (measuring about the length of the head itself) is thrust into the crevice of the bark to extract the lurking insect. The Creeper is silent in its work—a characteristic attributable in a great measure to the formation of its beak (Fig. 8), which

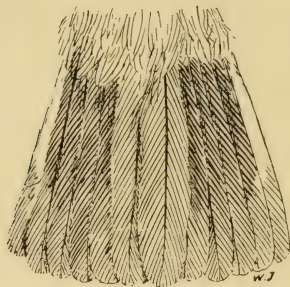


FIG. 7.
Tail of Nuthatch.
From nature. Natural size.

is too slender to be used for tapping the trees, or removing the bark. Neither has it a loud voice, like the woodpecker, to wake the stillness of the wood, for its note is soft and shrill, resembling the syllables twee-twee, and this is rarely uttered save as a call note to its mate.

It will be seen in the accompanying plate, that the bird on the left assumes in general outline

almost the form of a semi-circle. The shape of the beak, together with the arched back and tail, contribute to give it this form, which is always noticeable when the bird is seen from the side.

The nesting habits of this species are interesting. Sometimes a hole in a tree, but more usually a narrow crevice between the bark and trunk of a decaying tree, is chosen as a site for the nest. The crevice is frequently only half an inch in width, and into it the bird creeps, and piece by piece drags in



FIG. 8.

Head of Creeper, showing long curved bill.

From nature. Natural size.

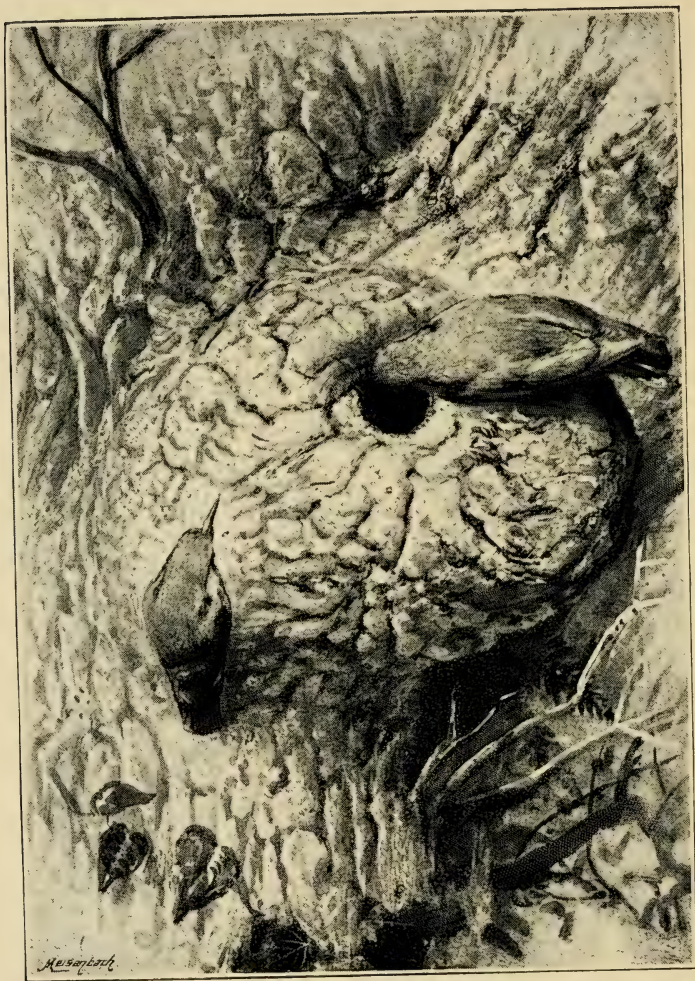
the materials which are to form the nest. One would suppose that, for the sake of security, the bird would fix the nest to the tree itself, instead of to the bark; such, however, is not the case, for when the bark is stripped off the nest adheres to it.

This clever little builder makes a compact and handsome nest. Fine twigs, grass, and chips of touchwood are collected and placed in layers one above the other until a foundation is made. On the top of this foundation a little cup-shaped hollow is

formed, and this is lined with wool and feathers. The size and shape of the nest vary according to the crevice or hole in which it is built. If made in a hole the nest is nearly round, and sometimes of considerable diameter; if built between the bark and trunk it takes a deep and narrow shape.

The Tree Creeper usually rears two broods in the year. It lays from six to eight eggs at the first nesting, in the month of April, and seldom more than five at the second. The eggs are white, with a few red spots, usually confined to the thicker end, and they are almost identical in size and colour with those of the great tit (*Parus major*). Both of these industrious little birds take their turn in sitting on the nest, and are equally attentive to their offspring, each bringing food to them incessantly throughout the day. Such very devoted parents are they, and such close sitters, that they may even be lifted off the nest.

Dark brown is the predominating colour in the Tree Creeper, and while its head and back are streaked with a paler tint, the wings have several bars of greyish white running across them. The tail, which is rufous, has the quill of each feather of a light brown, giving it a peculiar appearance. The chin, throat, and belly are of a silvery white, often dulled by the bird's contact with a tree.



NUTHATCHES: SHOWING PLASTERED HOLE LEADING TO NEST IN OAK TREE.
From nature. About one-fifth natural size.

CHAPTER III.

THE NUTHATCH.

(Sitta europæa.)

BY far the best way of observing the life and habits of forest birds is to sit perfectly still under a spreading tree, with one's eyes and ears wide open, ready to catch the slightest movement or sound. Many hours have we from time to time thus spent, but a certain sunny afternoon we especially remember. We had not been seated long at the base of a grand old oak, when a little wood-mouse peeped out of a hole at our side, and, seeing we did not move, the little creature soon gained courage enough to come out of its hiding place. Presently it sat upon its haunches, and began washing its face with its paws; then, taking a leaf in its mouth, dragged it into the hole. As the mouse disappeared, a creak in the tree above made

us look up, and there, running along a bough, was a creature, which for a moment looked like another mouse, but just then it came round the tree into the full light of the sun, and a beautiful little bird of a bluish colour was revealed before us.

A more active being one could scarcely conceive, as it nimbly ran along the top of the branch, and then, with body downwards, crept as easily along the underside; but suddenly, without a moment's delay, it darted off, and, alighting on the trunk of a decaying beech immediately opposite, afforded us a splendid view of the sprightly Nuthatch. The bird seemed almost to be performing for our benefit, yet this was only its usual way of spending life in its forest home. It began to ascend the trunk, putting one leg before the other, and walking up it like a mouse! then its sharp eyes detected something under a piece of bark below, and, turning round, it walked down the tree head foremost, just as easily as it had climbed up a moment before. The insect the bird had caught sight of under the bark had disappeared, but the Nuthatch was not to be so easily baulked of its prey. Taking a firm grip of the tree with its curved claws, it began vigorously to hammer with its beak the spot under which the insect lay concealed; but the stubborn bark would not give way, so the Nuthatch hammered harder, and with each blow it

worked its whole body as a lever from the tarsal joint, and in perfect time with every stroke, it gave a short, quick flap with its wings as if to keep its balance. Round and round that spot it walked, attacking it from every possible point, until at last the piece of bark broke off, and then like lightning the little bird seized its well-earned prize.

All this time we were seated with our arm outstretched under the old oak, when, happening to look down, we saw within a foot of our fingers an adder, with head erect, staring hard at us with its cold green eyes. The reptile was prepared to spring, but as we gently withdrew our hand it softly glided away, and disappeared in the surrounding undergrowth.

The Nuthatch's mode of climbing is very different from that of the woodpecker. It gains no help from its tail, which is short, square, and soft (Fig. 7, p. 28), and, moreover, a long tail would be an inconvenience in its many sudden twists and turns. The feet alone provide its climbing powers. Unlike the woodpecker, which carries two toes in front and two behind (Fig. 9), the Nuthatch has three in front and one behind (Fig. 11), the hind toe and claw being by far the strongest. Where the hind toe joins the foot there is a sort of pad, and upon this, which may well be called the heel of the foot, the bird rests a

great part of its weight when climbing, much as the woodpecker does on its tail.

Insects found on trees, also berries, beechmast, and acorns form the chief food of the Nuthatch. It is especially fond, however, of nut kernels. But how can a little bird break through the hard shell of a hazel nut? Let us watch it at its work. A nut is found—may be it was in some secret nook in which

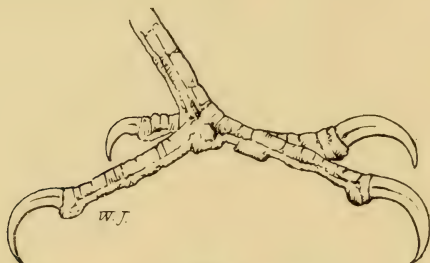


FIG. 9.

Foot of Green Woodpecker.

From nature. Natural size.

the bird had laid it up—we see it fly off with its treasure to a rough-barked tree, and fix it securely in a crevice of the bark. Here it takes a firm stand, and begins to hammer at the nut might and main with its sharp bill (Fig. 12), until bit by bit a ragged hole is cut in the shell, but, just as we think it has achieved its object, a last blow dislodges the nut, and down it falls. Not far, however, for like a flash the

bird darts after it, and, catching the treasure in its beak before the ground is reached, again flies up and fixes it in the chink ; and this time the kernel is soon extracted, and devoured with much relish. From the habit of cracking nuts the Nuthatch has derived this, its most usual name, for “ hatch ” like “ hatchet ” has sprung from the French *hacher* “ to chop.”



FIG. 10.
Foot of Creeper.
From nature. Natural size.



FIG. 11.
Foot of Nuthatch, showing “ pad ” at base of hind toe.
From nature. Natural size.

In England this interesting little bird is tolerably numerous all the year round, but in Scotland it is a rare visitor, while in Ireland it has not yet been observed. The Nuthatch may always be distinguished from other members of the order *Scansores*, or climbers, by its square, compact form and its plumage. The effect of its general colouring is delicate and

lovely—a bluish grey on the back and upper side of the wings, and buff on the breast, shading to a bright chestnut on the under tail coverts, the upper and under parts thus forming a beautiful contrast in colour. The throat is silvery white, and a black line of feathers, very similar to the “moustache” of the woodpecker, runs from the base of the upper mandible *through the eye* to the bird’s shoulder.

The Nuthatch is not a good musician, and indeed



FIG. 12.

Head of Nuthatch, showing strong, sharp bill.

From nature. Natural size.

it is always so much occupied, that it does not seem to have time to sing. As it climbs, however, it utters several different call notes, the chief of which is very shrill and piercing, and when once heard will not be easily forgotten. The syllable “twhit” whistled quickly in a loud, high-pitched tone, much resembles this call note, which is usually repeated from four to six times. Another note, not so often used, sounds like “twe-twhit,” the first syllable being

very short, the last longer. Besides these call notes the bird sometimes makes a purring sort of sound, resembling the syllable "tyrrh" repeated quickly twice, and a third time prolonged.

The nesting habits of the Nuthatch are peculiar and interesting. It makes its nest in some natural hole in a tree, but should the entrance to the cavity prove larger than is required for ingress and egress, or should there be an unevenness in it, the little builder plasters it round with mud, and finishes it off to the size required, for it never seems satisfied until the entrance to its home is exactly round, and only just large enough for it to enter. Its useful beak thus forms a double tool—a chopper and a trowel! Like the swallow this bird uses the mud when it is wet and sticky, and piece by piece it is carried in the beak to the hole, where it is carefully plastered to the wood, until at last the task is done. When the mud becomes hard and dry it is seen to be covered with minute holes—the marks of the bird's beak, showing with what care the work has been accomplished. From this singular habit of plastering the entrance to its nest with mud, the bird has earned the name in some parts of the country—in the New Forest for instance—of Mud-dabber.

We have, in the plate at the beginning of this chapter, a good example of such a plastered hole.

Walking through a forest one day we came across an old gnarled oak, whose trunk was covered with round knobs, in one of which was a hole, where once a branch had shot forth. Round this hole some mud was plastered, a sure sign that it contained a Mud-dabber's nest. We soon procured a saw, and for a quarter of an hour or so the old forest rang with its music until the knob was severed from the tree. A beautiful sight was then revealed to our eyes—a nest composed of moss, dead leaves, and chips of wood and bark, with two round ivory eggs, spotted with red, lying on the top. As we examined the nest we found five more eggs lying hidden in the leaves and moss. The nest was not woven together, but the materials were placed in a miscellaneous heap, while the leaves and chips of wood had been broken small by the bird, to enable it to carry them through the narrow entrance. Another nest, which we found high up in an elm tree, was composed entirely of small flakes of yew bark, gathered, doubtless, from an old yew tree hard by.

The Nuthatch sits very closely upon its eggs, and may be looked at without causing it to leave them. It is bold, too, in the choice of a position for its nest—a hole in a tree by a road being often selected; and we have known one, in which young were reared, that was situated a few feet above a seat, constantly used by passers-by as a resting place.

It seems strange that the Mud-dabber should narrow the entrance to its home, but a possible reason for this habit may be given. It is a very pugnacious bird, and during its encounters with tits and other birds its home is sometimes besieged and even captured. "A small breach is more easily defended than a large one," and may be the Mud-dabber knows this, when it makes the entrance to its nest as small as possible.



SCENE IN THE NEW FOREST.

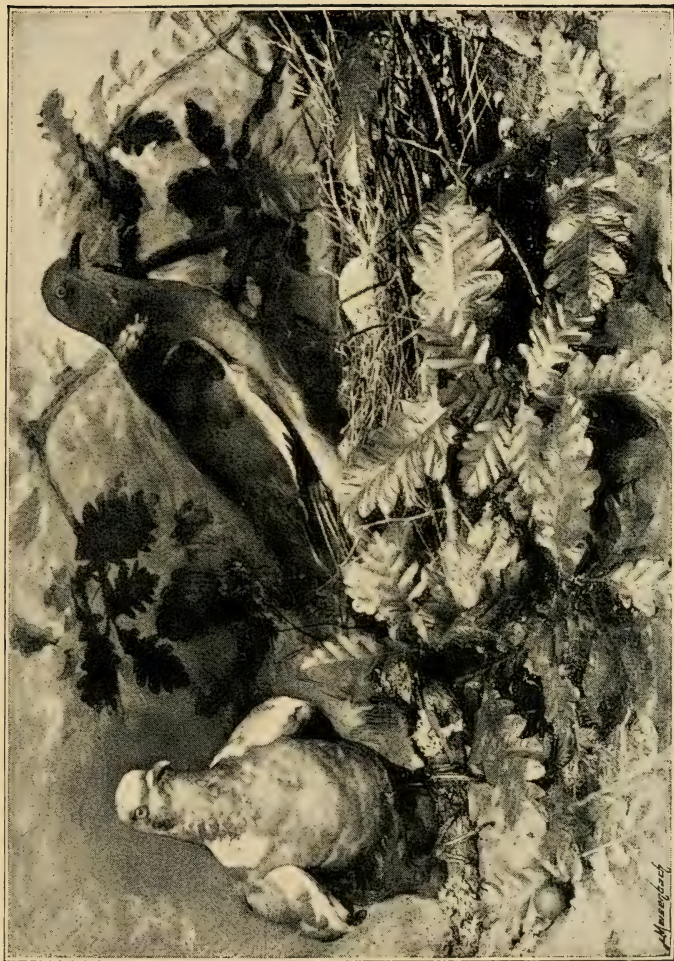
CHAPTER IV.

THE WOODPIGEON OR RING-DOVE.

(Columba palumbus.)

LONDON is hardly the place in which we should expect to find a shy and wary bird taking up its abode. Nevertheless, the Woodpigeon, usually so wild, has during the last few years come to London in considerable numbers for the summer months. We can only suppose that it has been clever enough to find out that it is as safe in our great metropolis as anywhere else, and indeed perhaps more so.

This bird breeds in several parts of London, and notably in St. James's Park, while in the present year (1894) there was a nest in a tree overhanging the pavement in the great thoroughfare of Piccadilly.



WOODPECKERS AND NEST ON BRANCH OF OAK TREE.

From nature. About one-fifth natural size.

Several times, too, we have seen as many as ten Woodpigeons together, feeding on the piece of grass under Lord Beaconsfield's statue opposite Westminster Abbey. There they seem quite at home, taking no notice of people or traffic, so that one can stand within a yard of the birds and watch their graceful movements; moreover, the "Kodak" may be brought to bear upon them, and thus, in London, this shy and wary bird may be portrayed from life! It is a lovely sight to watch them fly down, one after the other, from a plane tree in the precincts of the old Abbey. Descending with a head-long swoop until within about two feet from the grass, they suddenly check this rapid motion by raising their heads and spreading wide their wings and tails, and thus they drop gently to the ground. We would observe that in this downward flight the bird takes advantage, as it were, of every feather, the tail being spread out like a fan; and every marking on the feathers is plainly visible, while a bar of white feathers is conspicuous across the outspread wing. As we watch them when they have alighted on the ground, we can but say that their movements are quite as graceful as in the air. They strut about, daintily nodding their heads backwards and forwards, and every now and then they pick something from the grass, keeping an eye all the time on

the surrounding onlookers. Nevertheless, they become so tame, that they will pick up bread that is thrown to them, and will even approach to within a yard of the railings, over which a score or more of persons may be looking at them. When drinking, the Woodpigeon does not take short sips like other birds, but satisfies its thirst by one long draught as a horse would do.

The great length of this bird, combined with the conspicuous white bar across the wing, enables one to distinguish it at a great distance when in the air. Its flight is strong and rapid, and as the bird rushes along, it will often suddenly stop beating its wings, and, almost closing them, glide through the air until the force of the impetus is expended, when, again flapping its wings, it continues its journey.

The Woodpigeon becomes very bold in gardens during the summer months, and we have seen its nests within twenty yards of a house.

It is very destructive to fruit, being especially fond of black currants, while pears and plums are also favourite dainties. Ordinarily, its food consists of buds, young green leaves, beechmast, acorns, and grains of various kinds, all of which are swallowed whole, and we have heard of as many as ten perfect acorns being taken from the crop of one Woodpigeon.

In the autumn and winter these birds congregate,

and go about the country in immense flocks, which are not entirely composed of English-bred specimens, but are, no doubt, largely augmented by birds immigrating from the Continent. These great flocks do a large amount of damage to the crops, and on this account the birds are much sought after, as well as for the flesh, which is, as a rule, excellent eating. At the season when turnip-tops form their chief food, an exception must be made to this statement, as then the flesh has a disagreeable flavour.

It is no easy matter, however, to obtain these birds in the autumn and winter, so shy and wary do they become. Many contrivances, such as decoy birds, and whistles, are used by the gunner to bring them within range of his shot as he lies hidden in some ambush. Stalking the birds is also sometimes employed, but the best way of obtaining them is to stand towards evening in some wood, in which they regularly roost. Just before dusk the flocks come in, and as they circle over the trees, gradually coming lower and lower, many may be shot, for, strange to say, the rest, which are circling round, do not fly away at the sound of the gun or the fall of their comrades.

The plaintive note of the Woodpigeon or Cushat, as it is often called, may be heard at all times of the day in the neighbourhood it frequents. The syllable "coo" uttered slowly three times, then once quickly,

and finally once more prolonged, gives a very near approach to the note. The number and length of the syllables are, however, occasionally varied, but the note is always of the same soft, plaintive nature, from which fact the bird is supposed to have received the name Queest.

Besides Woodpigeon, Cushat, and Queest, this bird is often called the Ringdove on account of some of the feathers of its neck being tipped with white, and forming a partial and very conspicuous ring. In using this name the Woodpigeon should not be confused with the turtledove (*Columba turtur*), which is also called by some the ringdove, the former being the largest representative of the genus, and the latter the smallest, to be found in Great Britain. The Woodpigeon is indeed much larger in reality than it appears at a distance, the male measuring seventeen inches in total length and twenty-eight inches across the wings, while the female is slightly smaller. Except in this particular she scarcely differs from her mate; but young birds of the year have no white on their necks, and but an ill-defined bar across the wing, while their whole plumage is less glossy than that of the mature birds. The head and back of the male are bluish-grey, and the upper part of the neck is of the same colour, but the feathers on the sides of the neck, being tipped with white, thus

form the partial ring mentioned above. The breast and under side of the neck are purple-red, while the belly and under-tail coverts are ash-grey. The tail feathers are twelve in number, and are of three shades of grey. The beak, legs, and toes are dark pink.

The feathers are very loosely attached to the skin, a slight blow being sufficient to cause them to fall out. When suddenly disturbed from a bush or thick tree, the Woodpigeon will often lose several feathers, through its contact with twigs as it rushes out.

This bird builds in trees, and its nest is quite flat, and usually of the frailest description, being composed of sticks, with sometimes a few fine roots or feathers to do duty for a lining. It delights to build its nest in some plantation where it may be protected from the wind, and in these sheltered localities it is often so lightly put together that the two white eggs or the young birds may be seen by the passer-by from beneath.

The nest, however, is often placed in more open situations, and in this case it will be found that it is more compactly, and much more strongly built than when placed in a sheltered spot. The nest represented in the accompanying engraving is a good example of those found in isolated trees exposed to the full force of the wind. The nest is placed at a height varying from six to forty feet from the

ground. When the bird has been sitting some few days, the top of the nest assumes a whitish appearance, caused by a white powder deposited from the bird's plumage.

Two or three broods are reared in a season, the first eggs being laid in April, sometimes in March, and a Woodpigeon has even been found sitting on two eggs in September. The young are hatched in seventeen days; they are at first covered with yellowish down, and their eyes are covered by a film for the first nine days. They are fed from the beaks of the parent birds with a whitish secretion, often described as milk, which is supplied from the crops of the old birds. This manner of feeding the young applies to all the pigeon family.



WOODPIGEONS AT WESTMINSTER.

From an instantaneous photograph.



STOCK DOVES: FEMALE BIRD ENTERING NESTING HOLE IN OLD BIRCH.
From nature. About one-fourth natural size.

CHAPTER V.

THE STOCK DOVE.

(Columba ænas.)

WE were walking one day along a grassy ride in a forest, flanked on either side by spreading oaks and beeches, the tall stems of which rose high above the rich undergrowth of hollies, while here and there a gnarled old birch stood apart from the rest. Pursuing our way along the mossy track we carefully examined each tree, and presently observed high up in the trunk of a decaying birch a large round hole. There was no response as we tapped at the base of the stem, so taking a dead branch, lying hard by, we threw it up at the hole, and immediately out peeped the head and shoulders of a Stock Dove. No sooner did the bird appear than it saw us, and after a moment's hesitation darted with a rush and

a whirr out of the hole, and noisily beating its wings together once or twice, was off down the ride like a flash. Climbing up the tree, we found a large cavity, in which was the Stock Dove's nest, composed of a few sticks, upon which were placed two glossy white eggs.

In wooded country the Stock Dove nests in the holes of old or pollard trees, and has no preference for a position high up or low down, for in some cases we have seen its nests in holes five feet off the ground, and in others as many as sixty feet up the trunk. The same tree, however, is often resorted to from year to year for nesting, and thus, if the hole is very large, the nest is gradually increased in thickness.

One nest, which we particularly remember, was built in a hollow beech tree, and consisted of a mass of sticks some three or four feet deep—no doubt the accumulation of many years. Upon the top of this great pile a Stock Dove was sitting, using a hole on one side of the tree as an entrance to the nest; while on the other side, and about a foot below, was another hole, through which a tawny owl entered to its nest, made in a cavity of the same mass of sticks. Taking a stand at the base of the tree just beneath the owl, and looking up through a crevice, the Stock Dove could be seen on the nest above. This strange partner-

ship was the more remarkable as the Stock Dove is abroad during the day, while the owl is a night feeder, and thus, when the young were hatched, there could have been but little rest in either home. Notwithstanding their different habits and dispositions, both birds went about their duties peaceably, and did not seem inclined to molest one another.

The Stock Dove does not always nest in trees, but, like other birds and animals, adapts its habits to the surrounding circumstances. Hence we find it breeding in considerable numbers in the open treeless country in some parts of England and Scotland, more especially on the eastern coasts near the seashore. There being no trees in such districts, the Stock Dove has to find some convenient place in which to rear its young, and often uses a deserted rabbit burrow as a nesting place, laying its eggs, sometimes on a few sticks, but often on the bare ground, about a yard inside the hole. Occasionally one may find a nest under a thick furze bush.

Two broods are reared in the year, the first eggs being laid at the end of March or the beginning of April. The eggs are pure white, and almost identical in size and shape with those of a domestic pigeon. Both parents take their turn at the nest, and sit very closely for seventeen days, when the young are hatched. When about four or five days

old, the squeakers are considered a great delicacy, and if reared by hand from the nest, they become very tame.

Buds, green leaves, seeds of plants and trees, such as acorns and beechmast, and grains of various kinds form the chief food of the Stock Dove, but being a much shyer and rarer bird than the woodpigeon, it does not invade our gardens and carry off the fruit. In autumn and winter, however, Stock Doves often join the flocks of woodpigeons, which cause so much devastation in the cornfields.

This bird's note, unlike other members of the pigeon tribe, is harsh and unmusical. It resembles the syllables "coo-hoo," the last one being accentuated; and when this note is uttered in a wood it might almost be mistaken for the distant bark of a dog, so gruff is the sound.

The Stock Dove is very local in its distribution, being plentiful in some districts, and rare, or entirely absent, in others. It is abundant in certain localities in most of the midland and southern counties of England, but becomes rarer on the whole farther north; although of late years it has been increasing rapidly, and having spread northwards considerably, has now become numerous in several counties in Scotland. In some parts of the country it remains all the year round, while in others it is migratory,

leaving its breeding haunts about the end of October.

The Stock Dove is fourteen inches in length from the tip of the beak to the end of the tail, and its stretch of wing is twenty-six inches. Its general colouring is bluish-grey. The head, wings, and back are of this colour, and the tail is the same, but tipped with leaden grey. Some dark spots on the wing feathers form an irregular bar across the wing, whilst the sides of the neck are glossy, iridescent green. The top of the breast is of a delicate wine-red hue, on account of which the bird has received the scientific name *ænas*, from the Greek *οἶνος*—wine.

The female, as is the case in most of the pigeon family, is smaller and less brilliant than the male, but otherwise resembles her mate. Young birds, before their first moult, may be distinguished from older birds by the absence of the metallic colour on the neck.

It was once erroneously supposed that this bird was the parent stock, from which our domestic pigeons sprang, and hence some thought that it had thus acquired the name of Stock Dove. But it undoubtedly received its name from the habit of nesting in the stocks or trunks of trees. The rock pigeon (*Columba livia*) is, without doubt, the

species from which our domestic pigeons are derived. It differs but slightly from the Stock Dove in size and colouring, but in its habits it is widely dissimilar. The rock pigeon is an inhabitant of wild rocky coasts, building in caves and cliffs, very often in large companies. These birds never settle on a tree, and the fact that domestic pigeons will never do so of their own accord, goes far to prove that they have sprung from the rock pigeon and not from the Stock Dove, whose home is in the trees. Again, when domestic pigeons are let loose, and gradually "hark back" to nature, they invariably resort to cliffs or stone buildings, and breed in companies, whereas had they sprung from the Stock Dove, they would build in trees and go in pairs. Although we have said that the rock pigeon and Stock Dove are very similar in plumage, there is one striking mark on the rock pigeon—a white patch of feathers on the back just above the tail, which is peculiar to this bird alone, thus distinguishing it from other wild pigeons found in this country. When we examine the common sorts of domestic pigeons, and especially those to be found in the neighbourhood of all our great buildings in London, which have gradually regained almost their natural state, we see at once that the majority of them possess this white patch

of feathers above the tail, a further proof, if proof is needed, of their having sprung from the rock pigeon, and not from the Stock Dove.



THE ROCK PIGEON (*C. livia*).

From nature.

CHAPTER VI.

THE SPARROW-HAWK.

(Accipiter nisus.)

WE were standing one hot summer day on the skirts of a pine forest, intently watching a spotted woodpecker at work on a neighbouring tree, when suddenly there appeared beyond the woodpecker a dark object which looked like a ball or stone hurled through the air. It increased rapidly in size, and as it approached and became more distinct we saw that it was a Sparrow-hawk, which, with closed wings, was coming with the swiftness of an arrow straight for the woodpecker.

Quite ignorant of the near approach of its formidable foe, the woodpecker was busily pecking at the bark of the tree in search of the insects which form its daily food, but when the hawk was



SPARROW-HAWKS: FEMALE BIRD ABOUT TO COVER HER EGGS.

From nature. About one-fourth natural size.

within a yard of the unconscious bird, it suddenly stopped its headlong career by gracefully spreading its wings, and gliding past its intended victim, was soon lost to sight over the trees. We can only imagine that it saw us just before it reached the bird, or, more probably, that it thought the feat too risky to snap its prey off the trunk without damage to itself. At all events the woodpecker was saved, and when we looked back to the spot where it was clinging a moment before, it had disappeared, and we saw it no more.

The Sparrow-hawk may more often be seen in the open than in the woods. It glides swiftly along the hedgerows, darting from one side to the other through a gap or over a gate, and woe betide any bird or rabbit the hawk surprises. With unerring aim it darts at its victim, transfixing it with its deadly talons, and should its prey endeavour to seek safety in flight, it is immediately overtaken and struck down. Sometimes the hawk does not at first find its quarry; then it will often abruptly check its rapid flight, and alighting on some neighbouring bough, it stands erect and motionless. Soon the little birds which have hitherto kept hidden and silent in the hedge for fear of their enemy, begin to chirp and flit about, but the Sparrow-hawk is on the watch, and marking one out from the little flock,

suddenly hurls itself at it like a stone from a catapult, never failing to strike its mark. Sometimes as it glides over the top of a hedge it will hover for a moment as though suspended in the air, seemingly not quite sure if it were a bird or twig that it caught sight of in the hedge below. When chasing its prey this hawk is very bold and persistent, often dashing after some small bird into the thickest part of a hedge, or even through an open window. The bird figured on the right-hand side of the accompanying plate was stunned by dashing itself against a window while chasing a small bird, which suddenly dodged aside.

We well remember just at dawn one morning in the middle of winter, whilst we were lying in wait for duck and geese on the marsh, hearing a shrill screaming behind us, and turning round we saw, through the morning mist, a redshank flying rapidly towards us, and just behind, following its every turn, was a Sparrow-hawk. So intent were they upon their race that both birds passed right over us. We fired at the hawk, but although we did not bring it to the ground our shot so disconcerted it, that it gave up the chase, and the redshank escaped.

The Sparrow-hawk seizes its prey with both feet, and devours it upon the ground. A heap of feathers and the skeleton of a bird are often seen in some

quiet place under a tree or bush — unmistakable signs that a hawk has dined there. Small birds or rabbits form its chief food, but we are sorry to say that this lovely bird of prey is one of the few that the keeper or farmer is justified in slaying, for it cannot be denied that partridges, young pheasants, and leverets all fall victims to its prowess, and when the claims of a family press it sorely, it will even invade the farmyard, and snatching up a chicken, be away before the alarm is raised.

The name “Sparrow-hawk” was undoubtedly given to this bird on account of its preying so largely on small birds, such as finches, larks and others, which were in olden days all covered by the general name of sparrow, but we are not aware that it has any special liking for the house-sparrow. We once heard, however, of two Sparrow-hawks being caught by some bird-catchers with clap-nets in which they were taking sparrows.

It is a curious fact, that although so desperately afraid of this hawk, a troop of small birds, clamouring loudly all the while, will often follow the enemy when he has just carried off one of their comrades. It is difficult to discover a reason for this sudden change from cowardice to courage. A moment before, these same little birds were crouching in the hedge half paralyzed with fear at the sight

of the hawk, and now they are even following it. A mad frenzy, perhaps, suddenly seizes on them, and fear forsakes them momentarily, or, may be, numbers give them courage. Possibly they know that the hawk, encumbered with one of their number, cannot seize another. In olden days, this hawk was much prized by falconers, being flown at partridges and quails, and it is still used in foreign countries for such purpose.

Next to the kestrel, the Sparrow-hawk is the most widely distributed of all our hawks. It delights in a wooded country, and may be found in such districts throughout England. In Scotland it is common, save in the rocky isles of the Hebrides, Orkneys and Shetlands, where it is very rarely found. In Ireland, too, wherever there are suitable woods it lives and breeds.

The nest is usually built by the bird itself, but sometimes the old or deserted nest of a crow or woodpigeon is patched up and used as a nesting-place. It is composed of sticks, and lined with fine twigs, grass and a few feathers. The one figured in the accompanying plate was placed at the end of a beech-bough about seventy feet from the ground—a dizzy climb. It was very slightly made, and evidently belonged to a pair of young birds, as they are not so careful as the older ones in making their

nest. It is invariably placed in a tree, and usually at a great height.

The eggs, which are from three to five in number, are laid at intervals of two days. They are very striking in appearance, being of bluish-white in ground colour, and boldly marked with large blotches of bright chestnut. The markings vary considerably in extent and outline. The young are hatched in from five to six weeks, and during this time the female sits very closely. When first hatched the young are covered with yellowish down. They eat voraciously, and are well supplied with food by the parent birds, which often surround and even cover the nest with their captives, both feathered and furred. The female is very bold and fearless when she has young, and on returning with food to her offspring she often falls a victim to a shot from the keeper, who is lying hidden beneath the nest. The male bird is much more shy, and more difficult to bring to book, and, although he continues to feed the young after the death of his mate, if he should scent danger, he will drop food into the nest from above, to satisfy the cravings of the hungry brood.

The young may be easily reared, and they become very tame in captivity. When they are growing strong, however, the females should be kept from the males, because, as is the case in most of the

Raptores, or birds of prey, the female is much larger and stronger than the male, and will soon demolish him when they are confined to a cage. Of all the *Raptores* the Sparrow-hawk is most conspicuous for the difference in the size of the sexes, the average female weighing nine ounces to the six ounces of the average male, and measuring fifteen inches in length to the twelve inches of the male. The difference in the plumage of male and female is not so marked as their size. The male is brighter and handsomer than the female, but its general colouring is much the same. Its upper parts are dark bluish-grey and the nape of the neck has an irregular band of white spots. The tail is grey, barred with brown, while the under parts are dull white, beautifully marked with transverse bars of reddish-brown. The irides are bright orange, and the legs and feet, which are very slender, are of a lemon yellow (Fig. 13).

The wing of the Sparrow-hawk is comparatively short; and it is rounded in shape, the longest quill feather being placed fourth from the end (Fig. 14). In a wing of this formation there is usually an interspace between each feather at its extremity, through which the air escapes as the bird makes a downward stroke with the wing; and, moreover, a good deal of the air, which is collecting under the wing when it is forced downwards must necessarily

escape at the rounded end, that is, at right angles to the bird. But it is the air which escapes at the

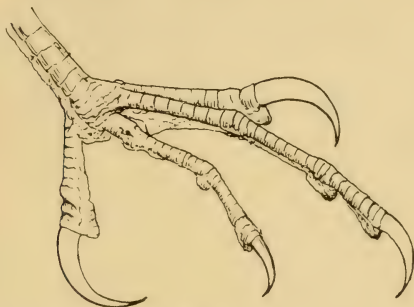


FIG. 13.

Foot of Sparrow-hawk, showing slender toes, and strong, curved claws.
From nature. Natural size.

back of the wing that is the means of the bird's propulsion, and, therefore, the air which passes at the end of the wing is useless for this purpose.

On the other hand, when we examine the wing of a sharp-winged hawk, such as a Merlin (Fig. 15), we see at once that the air cannot escape at the end, since it comes to a point, and therefore it must all be forced to the back of the wing, the yielding nature of which allows the air to lift up the ends of the feathers, and thus push the bird forward.

The round wing of the Sparrow-hawk, therefore, prevents it from overtaking a quick-flying bird in a long chase, and hence its stealthy habits when

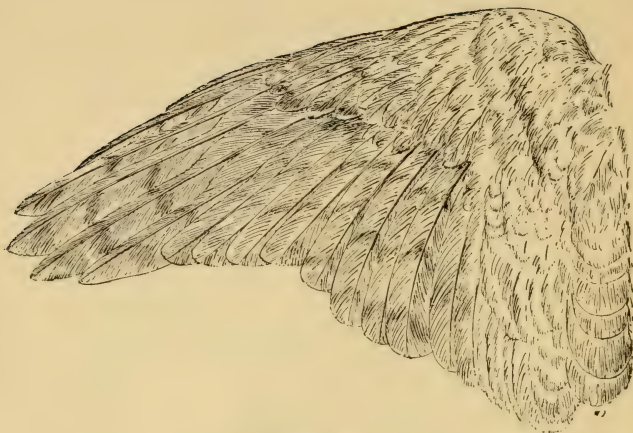


FIG. 14.
Rounded Wing of Sparrow-hawk.
From nature. One-third natural size.



FIG. 15.
Sharp Wing of Merlin.
From nature. One-third natural size.

hunting its prey; while the sharp-winged, and consequently fast-flying Merlin is bolder in its tactics, hunting its prey in the open field, and seemingly delighting to chase and overcome the fastest flying birds.

There are many ways of obtaining hawks, but perhaps "hawk calling" is the most effective. The call is made of two pieces of hard wood fitted together, with a strip of thin birch bark between them.

When this little instrument is properly blown, it gives forth a sound very much like the cry of a buzzard, which seems to attract hawks of all kinds. Rising early, we have often gone to some small hollow, and covering it with green boughs, have crept underneath with our gun and call. Although there was not a hawk in sight for miles around, yet within five or ten minutes of our first call we catch sight of one skimming by. Crouching motionless we call again, and soon see the hawk alight on a neighbouring tree. It is too far off for a shot, so we wait patiently and give another cry. Others now appear, and it is not long before several have fallen to our gun. But if we accidentally make a false note or call, or incautiously raise our head above the boughs, the hawks immediately detect the trap and take to flight, not to be seen in the same spot again that day.

CHAPTER VII.

THE TAWNY OWL.

(Strix aluco.)

THE sun has set, and the moon, just rising above the trees, casts dense shadows across our path as we are walking along a sombre glade in the forest. All nature is hushed, save for the occasional drone of a beetle, or flit of a moth, when suddenly, from a distant clump of trees, a loud cry sounds forth. We crouch down and remain perfectly still; then the melancholy notes are repeated, and a little further off an answering cry is heard. The sound gradually draws nearer, until at length it is loudly uttered just over our heads, and looking up into the branches above us we catch a glimpse, by the light from the moon, of a Tawny Owl gliding through the trees.



TAWNY OWLS : FEMALE BIRD LEAVING EGGS IN HOLLOW YEW TRUNK.
From nature. About one-fourth natural size.

This bird's cry, or rather hoot, resembles the syllables "whoo-whoo-whooo-oo," the first two being very short, while the next is prolonged and finishes up with a short "oo." It is a very mellow sound ; and, except occasionally, it is not heard to screech. One of its scientific synonyms is *Ulula aluco*, being derived from the Latin *ululare*, to cry like a wolf, and this word partially imitates both the cry of the wolf and of this Owl ; *Strix aluco* is perhaps the more correct name.

The Tawny Owl is also called the Brown Owl and Wood Owl, the two first titles being descriptive of its tawny brown plumage, the last of its haunts. A thickly-wooded district in England or Wales is almost sure to have its Brown Owls. It is also fairly common in the South of Scotland, but in Ireland it has not yet been found.

To those who do not care to roam through the woods at night, this bird is, no doubt, little known, for it is not often seen in the daytime. All day it hides in the recesses of the forest, perhaps in the hole of a tree ; or sometimes it may be detected seated on a branch nearly touching an old squirrel's nest, and it then requires a sharp eye to distinguish it from the nest itself. Strong light affects the sight of the Wood Owl exceedingly, rendering it almost blind, and it seems as much at a loss when abroad

in the daytime as a jay would be at night. It screws up its eyes and blinks in the most curious manner, and on being disturbed, flies about in an aimless way, and thus attracts the attention of other birds, and by no means pleasantly; for in a very few moments after it has been frightened from its roosting-place, a jay or missel thrush will find it out, and begin to screech and hiss at it. These birds quickly increase in numbers, and presently the owl will be surrounded by a "mobbing flock," all keeping, however, at a respectful distance from the object of their hatred, for every now and then the owl will make a dart at one of his tormentors, and snap his beak loudly as the smaller bird evades it.

The plumage of the Tawny Owl varies considerably in shade of colour, according to the age and sex of the specimen. The female bird is always larger and usually much more tawny than the male, and indeed this fact led to its once being considered a distinct species. In the male, the back and head and the upper sides of the wings and tail are a brownish grey of various shades, with several large white spots on the wing coverts. The under parts are dull white in ground colour, with brown markings.

As will be seen in the illustration, the eyes are very large and perfectly black. They are sur-

rounded as it were by a disk of bristly feathers, which gives the bird's face a very solemn and staring appearance. The bill, which is surrounded with bristles, is large and powerful. The upper mandible is longer than the lower, and being curved



FIG. 16.

Foot of Tawny Owl.

From nature. Natural size.

downwards at the end, it forms an excellent hook, with which the bird tears and carries its prey. The legs of the Tawny Owl are covered with short white feathers, and the feet have four toes, two pointing backwards and two forwards. (Fig. 16.) These are

armed with strong curved claws, and the bird having an exceedingly powerful grasp, the curved claws are an additional help to it in securing its prey.

The plumage is abundant, and so very soft that the bird flies in perfect silence, and steals unawares on its prey. Voles, rats, mice, shrews, moles, squirrels, small birds, and even insects are pounced upon by this prowler of the night. The prey is seized with the feet, and borne, either in the beak or claws, to a place of safety. The owl then devours it entire—bones, fur or feathers—and by a beautiful economy of nature, when the digestible portion is absorbed, the bird rejects the remainder in the form of a pellet, which is vomited up. These pellets, grey in colour, are about the shape and size of an emperor moth's cocoon (Fig. 17), and when macerated in water, they are often found to contain three or more entire skeletons of mice, together with the fur. They may be picked up in open ground, or under a tree frequented by owls.

This beautiful and most useful bird is still much persecuted by the gamekeeper and farmer, notwithstanding all that has been said in its favour. Occasionally the Tawny Owl may take a young rabbit. Why should we grudge him this, when we consider the vast numbers of mice and rats that he consumes? Gamekeepers have said that they have

seen this owl among their young pheasants, and have therefore shot it; but it has been proved more than once by dissection that the bird was merely catching the mice and rats, which were feeding on the corn left by the young pheasants.

Its usual nesting-place is a hollow tree, but sometimes the disused nest of a crow, magpie, or jackdaw is selected, and we once found their eggs in the top of a fir tree, the branches of which were naturally



FIG. 17.

Pellet of Tawny Owl, showing bones, etc. Outside covering partially washed away.

From nature. Natural size.

interwoven, thus forming a sort of platform. These birds make no nest, and if a hole in a tree is chosen the eggs are laid upon the wood dust at the bottom of the hole, while a quantity of pellets, and a few feathers are usually found intermixed with the wood dust. They resort to the same nesting-place year after year. The eggs are nearly round and perfectly white, and from three to five are laid. The bird

commences to sit as soon as the first egg is laid, so that there is often a considerable difference in the age of the young ones found in the same nest. They are hatched in three weeks, and are blind for the first few days.

An owlet of a few weeks old is a most grotesque object. It is covered with greyish down, and out of this downy ball appear two large eyes and a beak. If one should look into the nest the owlets snap their beaks and hiss courageously. However, until they begin to get their feathers the snapping bill has no strength, and the finger may be put harmlessly into the mouth. Owlets are very easily reared, and become very tame in captivity, although treacherous at times as they get older. They may be fed when very young on sopped bread and snails, and when older on almost any uncooked flesh, but young birds and mice are especially relished.

Although the Tawny Owl can live for a long time without water, he, nevertheless, enjoys a bath immensely. Standing in the water, he spreads out his wings and tail and throws it in showers all over himself. He emerges from his bath the very picture of bedraggled misery, but soon dries himself by vigorous pluming.

The old birds defend their young very courageously. A man known to us was savagely attacked

by the parent bird, while climbing a tree with the intention of taking some owlets. Hearing his approach, the owl flew out of her nest and struck the unfortunate man with both feet, piercing, with the long sharp claw, one of his eyes, so that he lost the sight of it, and all but inflicting the same injury on the other eye.

Should the hoot of the Tawny Owl be heard no more, our woods would lose one of their chief charms by night, and if this useful bird is exterminated, the farmer will soon find that he has lost one of his best friends.

CHAPTER VIII.

THE WATERHEN.

(Gallinula chloropus.)

AS the sun was rising one grey spring morning, we were making our way along the reed-grown banks of a sluggish little river, and, as always is the case at this time of the day, all nature was actively engaged. A water-rat was the first living creature to attract our attention as it sat upon its haunches eating some green food, all unconscious of our presence. A quack, quack above our head caused us to look up, and we saw an old mallard flying by, and soon after, as we came to a bend in the stream, we almost trod upon its mate, which rose with a whirr, disclosing at our feet a lovely nest of down containing ten green eggs. Nothing more charming



WATERHENS: FEMALE BIRD STEALTHILY LEAVING THE NEST.

From nature. About one-fourth natural size.

could be conceived than the beautiful down interwoven with dry reeds of which the nest was composed, with here and there a bright green blade of grass shooting through it.

As we turned round to continue our way, a dark coloured object floating on the stream caught our eye, and seeing that it was a bird we dropped on our knees, and watched it under cover of some tall flags. As the bird began to swim about, we saw that it was a Waterhen, or Moorhen as it is often called. It swam with a jerky motion, going from side to side in a restless manner, and moving its head backwards and forwards as it proceeded, every now and then dipping its head into the water in pursuit of some small fish or insect. At length it dived down and disappeared from view, and, as we watched, it suddenly emerged quite close to the bank, up which it climbed. A bird so clever in the water is usually clumsy on land, but not so the Waterhen. It walked about neatly and quickly, nodding its head and bobbing its tail all the while, each time displaying its white under-feathers.

Evidently the food it had obtained in the water had not satisfied its appetite, for a slug or worm was every now and then found and captured; then a piece of grass or some grain was plucked up and eaten. We had been watching its graceful move-

ments for some time, when suddenly our companion—a young retriever—rushed after it. We called him back in vain, and as soon as the Waterhen discovered that it was being pursued, it took to flight. So straight and low did it fly that as it reached the water its legs, which were hanging down, trailed along the surface, leaving a track of bubbles. The bird did not fly far, but soon dropped into the water, and when the retriever saw this he, too, jumped in, and then began a race between dog and bird, the one for enjoyment, the other for life.

The Waterhen resorted to every conceivable artifice in its attempt to elude its persistent pursuer. It dived and swam under water, coming up at the most unexpected spots, and sometimes only just putting its head out of the water to take a breath of air, it dived down again; then, half sinking, it swam along, with only its head and neck and the top of its back above the water, hoping thus to escape notice, but in vain, for the dog gradually got nearer and nearer to its prey.

At length, as a last resource, the plucky little bird ran into a clump of reeds, out of which it refused to be driven. But the retriever's blood was up, and he was not to be so easily beaten. Disappearing into the bed of reeds, he began to make a systematic hunt for his quarry, and presently a

scuffle was heard, and then the puppy's brown head appeared, and in his mouth was the Waterhen, alive and unharmed !

The Waterhen belongs to the rail family (*Rallidæ*), the members of which have not webbed feet, though several of them have either partially webbed feet, or are provided with an analogous growth to aid them

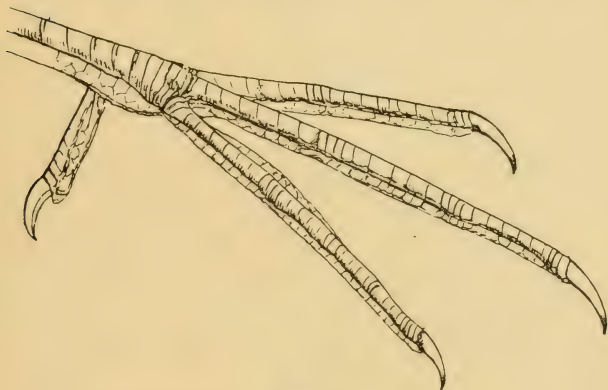


FIG. 18.

Foot of Waterhen, showing membrane at side of toes.

From nature. Natural size.

in swimming. The Waterhen has on both sides of each of its toes a narrow membrane (Fig. 18), which expands as the foot strikes the water, thus greatly enlarging the width of the toes, and affording the foot a greater resistance against the water. Moreover, when swimming under water it uses both wings and

legs, moving its wings up and down exactly as in flight, but with a slower motion, on account of the resistance of water being greater than that of air.

The feet are very large and the toes long for the size of the bird, giving it an awkward appearance. The usefulness of these overgrown members, however, is soon apparent when we watch the bird gliding over reeds and rushes, and threading its way in and out through a labyrinth of flags. The bird walks with perfect ease over huge networks of reeds, which have laced themselves together after the growth of years, its large feet preventing it from slipping through the "meshes."

Although the Waterhen is an inhabitant of reed and rush-grown ponds, streams and marshy spots, it is nevertheless often called the Moorhen, and it no doubt received this name from the fact that the word "moor" once signified a marsh; but as now by "moor" we understand heathy and more or less dry land, the Waterhen seems to be a more appropriate name. Moreover, the red grouse is sometimes called the moorcock or moorfowl, and may therefore be confused with Moorhen.

It is very generally distributed over the British Isles, and the same birds usually remain summer and winter on the water they frequent; but if frost drives them from their native place, they migrate

for a time to running streams and tidal rivers. By nature the Waterhen is very shy and unobtrusive, and although it often becomes semi-domesticated on a piece of water near a house, and will even feed with tame ducks when corn is thrown down, nevertheless it always appears to distrust human beings, and never quite loses its native shyness. Owing, perhaps, to this shy nature, we seldom hear the bird make any sound in the day-time, but when the sun has set and the soft twilight reigns, its loud call-note “crek-rek-rek” may be heard repeatedly.

The Waterhen chooses very varied situations in which to build its nest. A clump of reeds or rushes is the favourite position, but the branches of a tree, which overhang and touch the water, are often used to support the nest—a very precarious position, since any rising in the stream would swamp the nest. Sometimes it may be found in a branch of a tree ten or twelve feet from the ground, and at others, on the top of some mass of *débris* at the side of a pond.

But wherever the nest may be placed, its owner makes no attempt to conceal it, although on leaving the eggs it will often cover them over with *débris*, in the hope that they will not be discovered.

The nest is built of dead reeds and rushes, with some finer material, such as broken pieces of reeds, at the top. Although the shape of the nest is

generally flat and long, we once found one which was round and deep, and which, strange to say, was composed entirely of leaves and grass.

The eggs are six to eight in number, and of a dull white colour speckled all over with reddish-brown. Two and sometimes three broods are reared in a season, so that, although the Waterhen may be called a careless nest builder, it cannot be said to be an idle mother.

The first eggs are generally laid early in April, and in three weeks the young are hatched. When hatched, the young birds have the appearance of fluffy balls of black down, and they immediately take to the water, swimming about and diving with perfect ease. In the evening the old bird may often be seen brooding the young in the nest, with perhaps one or more of her chicks on her back. When they are big enough to fly, however, they accompany their parents to roost in the bushes and trees near the water.

The eggs of this bird can be hatched under a hen ; when the young are so reared they become very tame, and may be kept in an aviary or on ornamental water.

The female is slightly larger, and a little brighter in colour than the male, but otherwise she resembles her mate, while the young birds of the year have green beaks and are lighter in colour than the mature birds. The upper parts of the male are of a glossy

olive-brown, so dark that at a distance the bird appears to be almost black. The under parts are dark slate-grey shading down to a clouded white, while there are streaks of the same colour on the flanks. The under-feathers of the tail are white, contrasting with the almost black upper-feathers. The iris and bill are red, and the bill is rendered still more striking by a bright yellow tip. The legs, which are of a pale green, have a bright red band just above the so-called knee. It may here be said that what is generally known as the knee of a bird is in reality the tarsal or ankle joint; the knee joint being higher up and concealed by skin and feathers. The part of the leg of a bird from the tarsal or ankle joint to the toes may, therefore, be taken to represent our foot.



CHICK OF THE WATERHEN. *From nature.*

CHAPTER IX.

THE ARTISTIC GROUPING OF
STUFFED BIRDS.

THE setting up of birds, with their nests and eggs, or young, as we find them in their natural haunts, is an art of comparatively recent date.

To the late Mr. E. T. Booth is ascribed the honour of having been the originator of the idea, and we have only to look at the cases of birds in the Booth Museum, on the Dyke Road, Brighton, to see not only how realistically, but how artistically that idea has been carried out.

Groups of both land and sea birds are exhibited in the above-mentioned museum, and the majority of the specimens which the cases there contain are as perfect as it is possible to procure them. The means adopted, however, in obtaining such

perfect specimens were, without doubt, unduly extravagant, as we are given to understand that the late Mr. Booth often killed a score or more of birds of the same species, from which to select four or so of the best to furnish specimens for his case.

The grouping and setting up of the shore birds are especially beautiful, and of these we might mention a case of Sanderlings as worthy of special notice. Four or five birds are grouped in various and most natural attitudes along a piece of sandy beach, from which the sea has evidently just receded, leaving a line of dark wet sand, contrasting with the white dry sand above high-water mark. The subject is simple, but the effect is charming. The cases of land birds in this museum are not, we think, so happy, and perhaps the reason for this may be found in the fact that the late Mr. Booth would use no natural material in the cases, imagining that it would decay in course of time. He determined to make everything as lasting as possible, and accordingly all the trunks and boughs of trees were made of *papier mâché*, the result being, in the majority of instances, an artificial appearance, especially noticeable in the case containing the Green Woodpeckers.

The cases in the Natural History Museum at South Kensington afford an ample proof of the

lasting properties of natural materials, when they are properly preserved, and kept in air-tight cases. All the wood in the numerous beautiful cases at South Kensington is the "real thing." We know from the best authority that some of the pieces of wood containing nests were in a bad state of decay when obtained, and that in one instance (the Crested Tit) the tree was falling to pieces, and actually crumbled when touched; but now, by means of clever preserving with liquid glass, gum, and other materials, these pieces of wood, although they still have the appearance of a decaying tree, are likely to last for centuries.

The method employed in our great National Museum for obtaining the contents of the cases, and the after part, which is quite as important, viz., the setting up of the groups, is calculated to give the most natural, and therefore, as a rule, the most artistic results. Some landed proprietor, perhaps, sends word to the authorities at the museum that he has on his estate a pair of birds, nest and eggs, or young, of some particular species, of which the museum is in need. Collectors are then sent to the spot, and they obtain the nest and eggs, or the young, and the two parent birds. The immediate surroundings of the nest are also taken, even the very grass or reeds in which it was situated, and

should it be placed in a tree, the branch or portion of the trunk in which it is built is cut out, and the whole is then conveyed bodily to the museum.

Under the able direction of Dr. A. Günther, F.R.S., who takes the greatest interest in personally supervising this part of the work, the group is carefully arranged and set up exactly as it was found in nature. In some instances there are not many difficulties to overcome, and as an example of a comparatively easy group to "set up," we might mention the case of Spotted Woodpeckers, which is merely a twigless, leafless piece of trunk, having in it the woodpecker's hole, sawn off the tree, with the birds stuffed and placed upon it; but the beauty of a case chiefly lies in the attitude and grouping of the birds, which here are certainly perfect.

Skilful experts prepare the wood with various chemicals, rendering it impervious both to insects and decay. Leaves and flowers always present difficulties, because, as a rule, they cannot be preserved sufficiently well to appear fresh and "growing." Artificial leaves and flowers must therefore be generally used, and in the Natural History Museum these are all modelled in wax—a very costly process, but one by which the best results are obtained. Natural grasses and reeds, when properly dried and coloured, can be made to appear very life-like, but if

a few sprays made in wax are introduced here and there, an approach to natural brightness is at once produced. In the groups of ducks, which are set up amongst reeds and grasses in the most natural manner, the artists at the South Kensington Museum have been especially successful; and considering the beauty of the cases exhibited in this museum, and their educational value, it is a pity that comparatively so few people avail themselves of the opportunity thus offered of studying the habits and appearance of the birds, which are there exhibited in their natural breeding haunts.

Although an amateur can readily obtain the branch of a tree or shrub, upon which a bird has built its nest, he cannot always cut down a tree, in order to obtain a piece of the trunk, in which some wood-boring bird has its nest. Nevertheless, with a little trouble, the few square inches of the tree which are of primary importance, if the group is to be set up naturally, can usually be obtained, viz.—the entrance to the hole and its immediate surroundings. The remaining portion of the trunk, which is required for the case, can then be made up upon a foundation of wood and brown paper. It must be built up piece by piece of natural bark, which is always obtainable, and moulded to the desired form. This method is very tedious, but

when the bark is used in very small flakes or pieces, and the joins are properly concealed with lichens and moss, it looks as solid as a piece of the actual tree trunk; and the work has this great advantage—it weighs but little. When once the technical difficulties are conquered, the amateur usually has a great advantage over the professional, for he spends much more time on his subject, and works on until he has obtained a resemblance to nature. The work of the professional, as a rule, has little artistic merit, and to set up a bird in its natural surroundings successfully, this is undoubtedly required. Birds which have been cased by professionals are almost invariably surrounded with grasses, bulrushes, and ferns, mixed up together in the most incongruous way, and in utter defiance of the laws of nature, whilst to set up a group naturally, the greatest possible care must be used to prevent any combination, which would be contrary to these laws. The birds must be in the right plumage—many birds are totally different in summer and winter; the nest must be in a natural position; the leaves or flowers must be in the stage of growth corresponding with the time of year at which the bird builds, and a great many other minor details must be carefully attended to. And here let us say a word for photography as an aid to the naturalist. A note

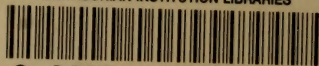
book is indispensable, but minute details cannot be noted down, whilst a photograph, however bad it may be as a picture, gives a lasting impression of the position of the nest, eggs, and young, and their surroundings, which can always be referred to when the group is being cased.

Above all, let the abominably unnatural "professional case," which teaches nothing of the habits of the birds it contains, be abhorred, and let the beautiful creatures, whose lives we have taken, be so grouped in their native haunts, that they may afford pleasurable instruction to everyone who sees them.



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